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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,736	11/21/2005	Takaki Sugimoto	58346US005	6659
32692	7590	08/08/2007		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427		<div style="border: 1px solid black; padding: 2px;">EXAMINER</div> <div style="border: 1px solid black; padding: 2px;">BODAWALA, DIMPLE N</div> <div style="display: flex; justify-content: space-around;"><div style="border: 1px solid black; padding: 2px;">ART UNIT</div><div style="border: 1px solid black; padding: 2px;">PAPER NUMBER</div></div> <div style="text-align: center;">1722</div>		
		<div style="display: flex; justify-content: space-between;"><div style="border: 1px solid black; padding: 2px;">NOTIFICATION DATE</div><div style="border: 1px solid black; padding: 2px;">DELIVERY MODE</div></div> <div style="text-align: center;">08/08/2007</div> <div style="text-align: center;">ELECTRONIC</div>		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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LegalDocketing@mmm.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/537,736	SUGIMOTO, TAKAKI
	<b>Examiner</b>	<b>Art Unit</b>
	Dimple N. Bodawala	1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 31 July 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 3-19 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.                                                         | 6) <input type="checkbox"/> Other: _____.                         |

## DETAILED ACTION

### *Response to Amendment*

Claims 1 and 3-19 are pending.

Claim 2 is canceled.

Claims 20-22 are withdrawn.

In view of the amendment, filed on July 31, 2007, following Rejection/Objections are withdrawn for the reasons of record given in the previous office action, mailed on May 16, 2007.

- ❖ Objection of claim 13 as being of improper dependent.
- ❖ Rejection of claim 2 under 35 U S C 112, second paragraph.
- ❖ Rejection of claims 1, 3-15, and 17-19 under 35 U S C 102 (b) as being anticipated by Kikuchi et al. (U S Patent No. 6,761,607 B2).
- ❖ Rejection of claim 16 under 35 U S C 103 (a) as being unpatentable over Kikuchi et al. (U S Patent No. 6,761,607 B2) in view of Chiu et al. (U S Patent No. 6,247,986 B1).

### *Election/Restrictions*

This application contains claims 20-22 drawn to an invention nonelected with traverse during the telephone conversation on April 26, 2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicant's election with traverse of claims 20-22, drawn to a method in the reply filed on July 31, 2007 is acknowledged. The traversal is on the ground(s) that Applicant has amended withdrawn claims 20-22 to also recite the features of claim 2; reconsideration of the restriction requirement is respectfully requested.

This is not found persuasive because the special technical feature linking the two inventions, the mold, does not provide a contribution over the prior art, and no single general inventive concept exists.

The requirement is still deemed proper and is therefore made FINAL.

***Response to Arguments***

Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (U S Patent No. 6,761,607 B2) in view of Woo (U S Patent No. 5,910,517).

Kikuchi ('607) discloses the mold which comprises the mold layer (4) having on the surface thereof a groove pattern of specified shape and size (See abstract; and figure 10), wherein the mold layer (4) comprises the lithium salt of an organic fluorine as an antistatic agent (See col.5 lines 11-25); wherein the lithium salt of an organic fluorine compound is blended in an amount of 0.9% by weight relative to the amount of the resin material forming the mold layer (See example 1).

Kikuchi ('607) further comprises the mold layer, which is transparent and consists of a hardened product of a curable resin material, which is selected from the group of a photo curable monomer such as acrylic monomer.

It further teaches that the curable resin material is selected from the group of acrylate oligomer, wherein the acrylate oligomer is selected from the group of urethane acrylate. It further teaches that the mold layer has a thickness of 500  $\mu\text{m}$  (See Example 1; col.4 lines 46-56; and col.5 lines 60-63).

Kikuchi ('607) further discloses the mold with support carrying said mold layer; wherein the support is a film of plastic material and selected from the group consisting of polyethylene terephthalate (PET) with a thickness of 50  $\mu\text{m}$  (See Example 1; and col. 4 lines 27-42).

Kikuchi ('607) discloses the mold is used for molding ribs of a back panel for a plasma display panel (PDP)(See col.2 lines 36-38). It further teaches that the groove pattern of the mold layer is a straight pattern composed of a plurality of grooves arranged at a constant spacing generally in parallel to each other; wherein the groove pattern of the mold layer is a lattice-shaped pattern composed of a plurality of grooves arranged so as to cross at a constant spacing generally in parallel to each other (See col.3 lines 4-7; col.4 lines 43-46; and col.7 lines 24-32). Lithium salt of an organic fluorine compound is not decomposed thermally at temperature below 200 degree C, because Lithium salt has high boiling point for decomposition thermally during the course of molding process using the mold (For further clarification see website

<http://www.noblemind.com/search.exe?keyword=Lithium+Boiling+Point&var=2>.

Kikuchi ('607) discloses all claimed structural limitations as discussed above. It further teaches that the mold layer comprises a lithium salt, but fails to teach or suggest that a lithium salt of an organic fluorine compound is selected from the group consists of  $\text{CF}_3\text{SO}_3\text{Li}$ , or  $(\text{CnF}_{2n+1}\text{SO}_2)_2\text{NLi}$ .

In the nonanalogous art, Woo ('517) discloses a mold layer with antistatic hard coating such as lithium salt of an organic fluorine compound (perfluoro surfactant), which is consisting of  $\text{CF}_3\text{CO}_2\text{Li}$  (See col.6) or  $\text{CF}_3\text{SO}_3\text{Li}$  (See col.8, example 2).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Kikuchi ('607) by providing an antistatic agent, such as lithium salt of an organic fluorine compound either  $\text{CF}_3\text{CO}_2\text{Li}$  or  $\text{CF}_3\text{SO}_3\text{Li}$  for forming hard, an abrasion resistant, and transparent coating on the product (See col.3 lines 16-45) as suggested by Woo ('517).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (U S Patent No. 6,761,607 B2) in view of Woo (U S Patent No. 5,910,517) as applied to claims 1, 3-15, and 17-19 above, and further in view of Chiu et al. (U S Patent No. 6,247,986 B1).

Kikuchi ('607) and Woo ('517) disclose all claimed structural limitation as discussed above. Kikuchi ('607) further teaches the mold layer with the groove pattern, but Kikuchi ('607) and Woo ('517) do not disclose the depth and width of the groove at the surface of the mold layer.

In the analogous art, Chiu ('986) discloses the mold, which comprises the mold layer with the groove pattern, in which the groove pattern is defined by plane portion and grooves (See figure 1); and wherein the groove has depth of 120  $\mu\text{m}$  to 140  $\mu\text{m}$  and the width of 20  $\mu\text{m}$  to 75  $\mu\text{m}$  as measured at the surface of said mold layer (See col.5 lines 64-67).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Kikuchi ('607) and/or Woo ('517) by providing the depth and the width of the groove in the groove pattern which is measured at the surface of the mold layer because such an alignment supports the groove pattern of the layer to match closely the pitch of the electrodes across the entire width of the display area (See col.6 lines 1-6) as suggested by Chiu ('986).

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE**

**FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dimple N. Bodawala whose telephone number is (571) 272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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